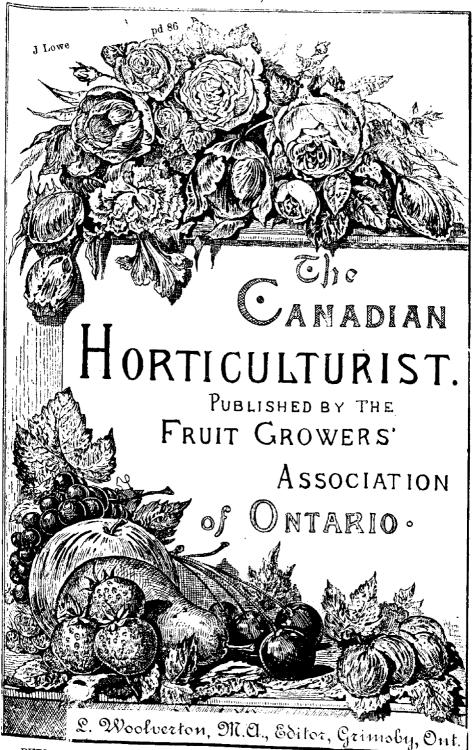
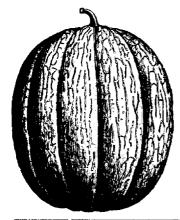
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Sterling Merit and Quality have made SIMMERS' SEEDS the Most Popular.

We make a specialty of supplying Market Gardeners, Florists, and Amnteurs with "Everything for the Garden" at the lowest prices and of the most reliable quality. Our Illustrated and Descriptive Catalogue of Seeds and "Cultivator's Guide" for 1887 is now ready, and will be sent to all who apply, free of charge.

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this?" potato.

What Mr. Beyer says: "Please accept my best thanks for the splendid seeds received from your firm.

It would be a rather lengthy list if I should name all, but will say that amongst 33 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat a control of the consist of t

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for I-S7. Old customers need not write for it. I catalogue this season the native wild potato.

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FLORISTS AND SEED GROWERS.

Rothesay Scotland.

Mr. E. J. Maxwell, of Montreal, writes us under date May 28th, 1886; - "I received by Parcel Post the tin box containing the Pansies which you sent. They arrived in splendid condition, eleven days from the time of posting. The plants looked as fresh as if only a day or two lifted."

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For 1887 is a richly illustrated book with illuminated FOR 1887 is a righly illustrator book with illuminated cover, over 60 pages and 200 engravings, giving plain and practical instructions for planting, nruning and management of FRUIT TREES and PLANTS; for obtaining them, and honest descriptions of all valuable varieties both New AND OLD, and low prices. Headquarters of the EHLE BLACKBERRY, GOLDEN QUEEN RASPERRY, MOKMOUTH STAMBERRY, LAWSON PEAR, SPAYLDING and JAPAN PLUMS, MEEU'S QUIVER, &C. SMAIL PRUIS, Apple, Peach and Nut Trees specialities, Guide with eight Colored Plates, 10c. without plates be. Price lists free. Trees & Plants by Mail a leading feature. All who mention this paper will receive a copy Obenhand & GARDEN gratts.

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A SEEDLING OF SHARPLESS, OFTEN MEASURING NINE INCHES AROUND, FEW SMALL BERRIES, NO LEAF BLIGHT, REMARKABLE FOR QUALITY, BEAUTY AND PRODUCTIVENESS



OFFICE ADDRESS-GRIMSBY, ONT.

 $\mathbf{VOL}, \mathbf{X}$ .]

FEBRUARY, 1887.

# Aew Fruits.

THE JESSIE STRAWBERRY.

This is a very pretentious strawberry. It claims to be just the very berry that everybody wants. We want a berry of excellent quality, and we are assured that in quality it surpasses the Atlantic or the Prince of Berries! We want a large berry, and they tell us that it is one of the largest, that thirteen selected ones or thirty ordinary sized ones will fill a quart, and that some of the berries measure eight or nine inches in circumference! We want a productive berry, and we are told that it is twice as productive as the Sharpless; indeed, some of our American friends would have us believe that it will produce from 6,000 to 18,000 quarts per acre! But we Canadians are too slow-going in our notions to swallow that statement whole.

The originator of the Jessie is Mr. F. W. Loudon, of Janesville, Wisconsin, and before purchasing the colored plates for our journal we wrote to him and others to get as reliable information as possible concerning its merits. give Mr. Loudon's reply in full, leaving our readers to form their own conclusions.

"SIR,-Yours of the 20th November to hand, and in reply I will say that you may believe me when I tell you the Jessie is no humbug. prove just as I represented it in any part of the earth where the strawberry is known. It is an immense grower. To-day (Nov. 23) I have dug 2,000 plants that were not in existence till after the 21st of August. Nine-tenths of the plants were extra large, and the size of the berry and yield is in keeping with the growth of the plant. I counted 120 roots on one plant, and of the lot none ran lower than 70 to a plant.

"The Jessie originated in 1880; it has fruited five seasons, always giving the same results—an immense yield. The lithograph was made from a painting copied from nature, the exact size of berries that grew in matted rows, picked from plants that had once been gone over by pickers. The strawberry beds had not had a drop of rain for six weeks. The ground was so hard that a hoe would make no impression. The yield on four matted rows was two hundred bushels per acre.

"I am well pleased with the Canadian Horticulturist. I did not suppose so good a one was published in Ontario."

F. W. Loudon.

Mr. John Little of Granton, Ont., is well known among us as a strawberry grower. He went visiting among American fruit growers last summer, and was carried away with the merits of two new seedling strawberries he saw in fruit in Ohio. But he came back safely, though not yet willing to disbelieve the evidences of his senses. He writes "I saw the Jessie in all its glory at Matthew Crawford's place. I I believe it and the *Itasca* are the leaders of the best strawberries of today" and again "I hope you will speak well of the Itasca, it is worthy."

Altogether it would appear that the Jessie is worthy of extended trial, and, if it bears out its present promise, we shall be thankful to Mr. Loudon for the result of his years of patient effort in growing seedlings.

Having been favored with a cut of Miss Jessie Loudon, after whom the strawberry is named, we give it a place in our columns, presuming that as the young lady is not yet in the market, this notice of her cannot be taken in the light of an advertisement.



JESSIE, AFTER WHOM THE NEW STRAWBERRY IS NAMED.

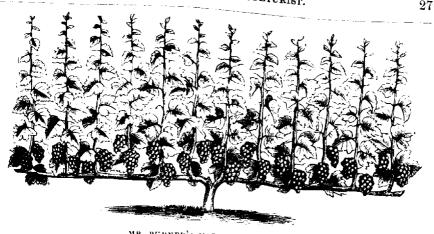
# Fruits.

RAMBLES AMONG FRUIT GROWERS.—I. Noticing the name of

MR. S. BURNER

quite prominent as a winner of prizes in grapes both at Toronto and Hamilton Fairs last September, we thought it would be worth while to visit him and enquire by what secret he had succeeded in producing such wonderful out-door grapes.

We found his garden in the eastern suburbs of Hamilton. Walking in from the front gate it was evident we were in the grounds of a practical gardener. The well kept rows of Downing gooseberry bushes told of an abundant harvest. The long, highly cultivated and beautifully trained rows of grape vines, still (Sept. 29th.) hanging with rich clusters of red, white, and black grapes, spoke of a profitable vineyard.



MR. BURNER'S MODE OF TRAINING.

Ah! here is Mr. Burner, busy gath. ering those fine Rogers 44.

Would you mind, Sir, telling me the secret of your great success in producing such immense grapes as those you exhibited at the Fairs?

No secret at all, said Mr. Burner. There are just a few points to the observance of which I attribute my success; first

### TRAINING.

I follow the renewal system. I see a good many of my neighbors still spurring away, but I believe I get more and better fruit by this system. In the spring I cut down every old branch to within one bud of the main lateral, leaving the upright of last season's growth for fruiting.

We noticed these old laterals had now become very large and strong, and throughout the whole vineyard the vines looked as represented in the cut.

Another advantage, said Mr. Burner, which I get by this method of pruning, is the ease with which I can lay down the vines in winter and cover them.

Do you think it pays in this section to lay down such varieties as the Concord?

Well, I know this, that I can't afford to leave them up.

Do you summer Prune?

Yes, a little. I stop the growth of the vine just beyond the last bunch of grapes, and thus stop the side shoots after one or two leaves. I find two advantages from this; (1) the grapes ripen earlier and (2) the size is much The next point is increased.

## THINNING.

No wonder some people's grapes never They leave so many bunches on the vine, that it has no strength to mature its fruit.

Those berries of Rogers 44 are tremendous in size; why they are over an inch in diameter! and those No. 15 and No 19 are almost as large.

Yes, that brings me to speak of another means I use to get fine sized fruit It is

## RINGING THE VINES.

It was at one time considered a great secret, but it is a very simple matter. I simply girdle the bearing wood in the summer, just above the main lateral taking off a circle of bark about two inches long. The sap is thus prevented from descending, and must go to develop the grapes. It does the vine no harm, because these are the branches

which I would cut off the following spring in any case.

But is it not a tedious job to be done in a large vineyard?

Not at all. Why a man can ring an acre in a day. A rich man can afford to leave his vineyard without ringing, but I can't afford to do so. I find my grapes from vines that are ringed bring me twice as much money in Toronto market as those not ringed. They may perhaps not be quite as good in flavour, but people do not stop to consider that. Anyway the difference in taste is very slight.

What means do you use to keep off the mildew?

Nothing but Sulphur. I apply it as soon as I see the first appearance of mildew, and usually find it effectual in preventing it.

Which are your favorite varieties?

The Rogers' Hybrids. I prefer Rogers' 43 to Moore's Early, it bears more heavily with me, and the bunches are twice the size. The Brighton mildews with me worse than Rogers, but its quality is certainly excellent, and it is an enormous bearer. August Giant, in my opinion, is not equal to Rogers 43 or 44. It is too small. Iona does not ripen with me; but Prentiss is excellent, it is a good bearer, and in point of flavor I consider it better than the Niagara.

### VITICULTURAL.

Best Varieties.—Mr. E. D. Smith says in the Live Stock Journal that only varieties of prime quality should be planted. No one wants Champions in any quantity. His Worden and Moore's Early came into the market with Pelee island Concords and brought 6 cents while the latter sold at 3c. His Niagara sold at 2½ times his Concords and he thinks that it will some day be the

grape for export. Our own experience agrees with him in placing Moore's Early, Worden and Concord as the three leading dark grapes for Canada.

PLASTER FOR THE VINEYARD.—The grape vine is greatly benefited by an occasional application of plaster (sulphate of lime). It requires some sulphur and likes lime.—Orchard and Garden.

Training Grape Vines.—Mr. Geo. W.Campbell writes in the Ohio Farmer: "The matter of winter protection has become so important in many sections, that when the horizontal arm is employed, I would first plant the vine in slanting position along the line of the lower wire, and then train but one arm, of double length, in the same direction. letting each vine follow the same way, touching, or nearly touching its neighbor, and the fruit-bearing shoots all trained upward, to be renewed annually upon the short spur or Fuller method. I think this would render practicable the laving down for protection, and greatly reduce the labor of so doing."

### SMALL FRUIT NOTES.

Profits.—J. H. Hale writes in Farm and Home: "With all the advantages of good markets, none of us are getting rich out of the business. Some are only just making a living, while others are losing money and fast becoming discouraged with the low prices that have ruled the past few years. We hear all about the one successful cultivator who succeeds in producing 6,000 or 8,000 quarts of strawberries or 4,000 or 5,000 of raspberries per acre, and sells them at 15c or 20c per quart, while nothing is said of the ''ninety and nine just men' and fruit growers who get only 1,500to 2,000 quarts per acre and sell them at 5c or 6c." We are of the opinion that a little of this plain and honest talk will hurt nobody.

FAY'S VS. CHERRY CURRANT.—Peter Fay says in the same journal: "For two years I have grown Fay's Prolific currant. The fruit stem is four to five inches long, commencing of a good size at the stalk, but diminishing toward the end of the stem, which is not larger than duck shot. I prefer the Cherry currant at the same price; it is a great bearer."

Dr. Hoskins, however, prefers the Fays. Probably his soil is different. He says: "At last we have a big currant that will bear heavy crops on light land. I have never been able to make a cent by growing the Versailles or the Cherry currant, they are so very unproductive on my soil. I have now had the Fay four years, and find them yielding as heavily as the reliable old Red Dutch. As the currant crop is quite an item in my farming, I consider that I have in the Fay a bonanza, as I had confidence in them from the first, and have made a large plantation of them."

With us at Grimsby the Cherry has been a great favorite, especially on clay loam, where no better cropper could be desired, and the fruit grows to a tremendous size. But on light soil it bears very light crops.

J. J. Thomas is reported as saying that anyone who has the Versailles, Cherry or the Fay alone, need not take the trouble to get either of the others, unless the latter should prove after years of trial to be the most productive.

Jewell Strawberry.—A writer in R. N. Y. complains that this variety throws out very few runners, while the Belmont sends them out in abundance.

THE MARLBORO' RASPBERRY.—The Hon. Mr. P. Wilder says of this variety: "The Marlboro' is early and prolific, ripening its crop gradually, and when fullyripe is of good quality, good size and firm enough for traveling to a distant market; but to obtain these advantages the suckers must constantly be cut down.

It is the most vigorous and robust of all raspberries,"

# INDUSTRY GOOSEBERRY.

This English Gooseberry, which has now been considerably disseminated in this country, appears to hold its place as a non-mildewing variety, a very unusual circumstance in this country, for all other varieties of the English Gooseberry have been subject to a destructive fungus on this side of the Atlantic, except in some particular spots, or for a short term, merely. The fruit is large, of a dark red color, and of excellent quality. It is quite productive. this variety and Downing, and Smith's Improved, fruit growers should be able to raise handsome crops, and every private garden should be enriched by their possession .- Vick's Magazine for January.

## A BIG YIELD OF STRAWBERRIES.

SIR.—I thought I had done exceedingly well with the Wilson strawberry last summer, but I see, according to John Croil, of Aultsville, I was beaten by "Mr. Beall's crop."

From a spot three rods one way, by five the other, in my garden, 975 quarts of Wilson strawberries were gathered The mode of cultivation was last July. as follows: The ground being well prepared in April, 1885, it was planted in rows two feet and a half apart, with thrifty plants from ten inches to a foot apart. Then Globe mangels and carrots (the large white) were sown midway between the rows of strawberries. Sixty bushels of roots were gathered in October, 1885. A selection from mangles took the first prize at the great Northern Exhibition in Collingwood. The strawberry vines covered the ground without thinning or directing after July, 1885, but they were treated with two or three bushels of hard wood ashes in March. J. B. AYLWORTH.

### THE MICHIGAN HORTICULTURAL SOCIETY.

We clip the following interesting selection from the full report of the December meeting of that society, in the Grand Rapids Daily Democrat.

### THE SOCIETY.

Seventeen years ago was organised in this city the Michigan State Horticultural society, an association which has grown to be one of the most vigorous and useful of all the societies of the State devoted to advancement of special interests. It has come to be one of the most important of its kind in the country, and its annual volumes are recognized as pomological authority everywhere, and the good it has done in promoting fruit growing in Michigan is incalculable.

The early years of the society were days of small things. It kept the character of a local society for some time, but when T. T. Lyon, of South Haven, became president, in 1875, and was joined by C. W. Garfield, of Grand Rapids, as secretary, the following year, the society took on new energy and a new character. To Mr. Lyon the welfare of the society has been a first love, and he has given it a vast amount of unselfish and unrequited He has been intelligently and industriously aided by Mr. Garfield, whose enthusiasm and genius in hard work have been most fortunately combined with the efforts of the venerable president. These two have been rechosen year by year, and doubtless will be as long as they are willing to accept a modicum of honour with an excess of responsibility and labor.

### HIGH CULTURE.

The following very valuable paper by Secretary P. C. Reynolds, of New York, was read by Secretary Garfield under the head of "Intensive methods in horticulture:"

Very general complaint has come from nearly all sections of the country where small fruits are produced for markets that prices the past season were unremunerative. Such being the case, one of two alternatives seems to be indicated, namely: the reduction of volume of products or the diminution of its cost. It is a very difficult matter for fruit growers, scattered as they are over a wide area, to combine to reduce production. The orderly operation of the laws of trade and production have a tendency to diminish production when excessive, but combination rarely does. The prices of small fruits are destined. I believe, to rule low in the future, and growers will be wise to adapt their business to that condition of things. With unlimited land and labor for production, the amount produced will be likely to increase quite as fast as population. The proper way to cheapen production, in my opinion, is by producing more per acre. Every grower can do this for himself without the necessity of combination or co-operation.

Small-fruit growing used to be considered a branch of horticulture. Recently many have conducted it as if it belonged to agriculture. The result is not surprising. The horticulturist to grow large quantities of produce on small areas of land by means of heavy manuring and high culture; the agriculturist spreads his operations over broad areas of soil, which he cultivates enough to enable the roots of crops to spread through the soil, without serious obstruction, in search of adequate supplies of suitable food, and to prevent weeds from obtaining such growth as to overcome the plants he is seeking to grow. The horticulturist seeks a small tract of garden soil, near a town or city, where he can have an abundance of fertilizers, laborers of the right kind. and where proximity to market enables him to deliver his products, from day to day, fresh to consumers.

Now it seems to me that too many small fruit-growers have, within a few years, come to adopting the methods of the agriculturist rather than those of the horticulturist. They have planted their fruits in fields instead of gardens; they have manured as if for farm rather than garden crops, and they have cultivated after the manner of farmers rather than as gardeners cultivate. Moreover, many have located remote from town, subjecting themselves to quite a tax in transporting their fruits to market and in transporting their laborers to and from their labor. the farmer stick to farm crops, and they who are fitted by nature, tastes and training for horticulturists grow small fruits. This, I think, is the natural order of things, and to this, I believe, we shall be obliged to come.

## ARE MICHIGAN APPLES DETERIORATING?

President Lyon—They are deteriorating. Probably there is not more than one in 20 growers but are impoverishing their land.

Prof. Bailey—The increasing age of the orchards may account for it.

E. H. Scott—The apples certainly are deteriorating. We can no longer grow Esopus, Spitzenberg, Fall Pippin, Newton Pippin or Bellflower.

President Lyon said many reasons conduced to this. Growth from year to year in untoward conditions, the increasing age of trees, tend to deterioration. Yet in some particulars there is improvement, as increase of age of trees gives better flavour and keeping qualities, and it is a question where the balance of gain or loss would fall.

A note from H. W. Steere, of Adrian, stated that he did not agree with those who attributed the deterioration mainly to insects, but thinks exhaustion of the soil the exciting cause.

Deep, black, strong clays are rare in Michigan, and our light sands and gravels cannot stand the exhaustion for forty or fifty years from grain, grass and root crops and fruits all on the same ground. He theorized that the soil has been relieved of the lime and ashes existant in it originally, and intimated that restoration of these would cure the existant evils. Use of stonelime, a bushel to a tree, has been known to restore Newton pippins that had become small and scabby. Instead of letting go such valuable kinds as this and the Spitzenberg we should take steps to restore them.

W. K. Gibson—If the first apples were good, and the climate is not different, we should seek the adverse influences in the soils, and there we may find why apples deteriorate, if they do.

S. M. Pearsall would set Spitzenbergs were he to plant an orchard today. Insects are more numerous, and we cannot expect as good results from old trees, but when proper care is given we can do as well as ever.

S. D. Willard—It is well known that quick-lime is in no sense a manure, but, like salt, it sets free and makes available certain elements. With destruction of the forests, and other causes. fungoid diseases have wonderfully increased. The thin-skinned sorts were the first to suffer. The wheat, sheep and cattle that Michigan has sent to market have carried off the phosphoric acid which the fruit so much needs. needed elements have been taken from the soil. Restore these and you will again be able to grow fine apples, even of the thin-skinned kinds.

### STOCK AND SCION.

Replying to a question, Mr. Bailey said it was undecided as to the effect of stock upon the fruit of scions. There is often a mechanical influence, dwarfing

or magnifying the growth of the scion; but there are only a few cases, and they not well authenticated, of change in character of fruit.

### THE CODLIN MOTH.

Discussion shifted to methods of combatting the codlin moth. W. A. Brown of Benton Harbor said growers in that vicinity had for three years practiced spraying apple trees with Paris Green with great success. Sprayed on just after the blossoms fall, the poison seems to kill off the brood of moths that survives the winter. This brood is small, comparatively, the main damage being done by the later hatchings. The effect has certainly been marvelous in making apples perfect, even when the adjoining orchards were not treated—showing that the moths migrate but little.

W. H. Parmelee used London purple this year and had more perfect apples than for years. There is danger of injury to trees by use of too strong solution. He used one pound to 50 gallons of water, but half the quantity is sufficient. The mixture was beneficial also upon cherry trees.

W.N.Cook spoke of the danger to the operator. Do not allow the spray to be blown back against you. Kerosene emulsion is said to be much better.

Prof. Ragan—Prof. Riley's position is that the emulsion is preferable. It is made of 75 per cent. of oil, 25 of soft

soap, to one gallon of water.

S. D. Willard—It requires more skill to use the emulsion without injury to the trees than to use Paris Green. Three ounces to 40 gallons of water is a sufficient quantity, but the powder is often adulterated and so is of variable strength. I have used it upon pears also, while the blossom ends were upward, with good effect. Keep to windward of the spray and wear gloves lest the poison enter wounds upon the hands.

Mr. Cook—If the emulsion is perfect it remains uniform when diluted, but if the union of the ingredients is not perfect injury is likely to result.

### NEWER SMALL FRUITS.

Wilson jr. Blackberry—Not materially different from the Wilson.

Marlboro' Raspberry—Opinions were various; does not show promised vigor; about like Cuthbert in growth, but not as good quality; if it doesn't do better Mr. Scott will take out his three acres; half the size of Cuthbert and of poor color, though at first did well; at Benton Harbor canes quite strong, ripens with Turner, firmer and better color than either Turner or Cuthbert and brought much better prices; grows slowly and of no consequence; there are several sorts of Marlboro'.

Lucretia Dewberry—Mr. Lyon has had good crops for three or four years; best dewberry he knows; is not derived from wild dewberry, but is a trailing variety of the high blackberry; may be a hybridization of the two; fruits well at Ionia, but turns red and sour; two weeks earlier than any blackberry.

Niagara Grape—Rots when the Concord does; white grapes are not more subject to rot than others.

Belmont Strawberry—One member only had fruited it and found it very promising; others were pleased with quality of the plants.

Golden Queen Raspberry—Fine color but same as a yellow Cuthbert; not bet-

than Brinckle's orange.

Hilborn Blackcap—Less seedy than others and of fine quality, but not yet well tested.

### PORTRAIT OF PRESIDENT LYON.

The Society, by committee, has had executed a very large crayon portrait of President Lyon, which is to go into the horticultural room in the state capitol, to help perpetuate his memory and good fame. It was revealed to Mr. Lyon last

evening, after a brief speech of eulogy by Mr. Gibson, rehearsing Mr. Lyon's exceedingly great services to the society. It was to Mr. Lyon a complete surprise, and he was so deeply moved that response was impossible and he quickly resumed his seat, asking to be excused from remarks.

## ELLIOT'S EARLY PEAR.

SIR,-Referring to your notes on early pears in the December Number, I wish to say a good word for Elliot's Early. It is a native of Windsor, Ont. I procured my tree (Dwarf) from Mr. Dongall. It is a delicious pear, medium, but uneven, in size, a profuse bearer, and handsome in appearance.

They commenced to ripen with me last summer on 22nd July, and, the young people having discovered their merit, were nearly all gone by the 1st of August. They ripen on the tree a half-dozen or dozen at a time, and no sign of rotting at the core. The tree is not so hardy as the Flemish Beauty, but stands the winter here fairly, which, by reason of our elevation, is exceptionally severe. Grapes last year were almost a failure-spring frosts.

J. P. W., Stratford,

## CONDENSED FRUIT REPORTS.

CHINESE PÆONY.—The Chinese Pæony received in 1883 did remarkably well, blooming the first and each successive year in spite of the injury done them by dividing the roots every spring, for propagating purposes. They are easily cultivated, requiring no protection whatever, and produce the finest flowers: (though not the largest), when planted in soil only moderately rich. Those who grow only the common Paeony can form no idea of the beauty of the Chinese varieties. J. H. WISMER, Port Elgin.

THE PRENTISS GRAPE, received in 1884, made a growth of about ten inches while other varieties alongside, with less care, made five to eight feet. first winter it froze, but sprouted the following spring from the roots and again made the same sickly growth, was again injured by frost, and now I consider it an utter failure, of no earthly use in this northern country. In this connection I may say that my grounds are fully exposed, and the climate here being a most vigorous one, in thing of a tender nature can be grown.

J. H. WISMER.

SMALL FRUITS.—The Fay's Prolific Current promises well; and so does the Marlboro' Raspberry. The canes of the latter are large and strong. The fruit is large and very fine.

STRAWBERRIES did well. I find it a real success to clean and put the strawberry bed in a good condition soon after the fruit is off. I cut off all the leaves and runners, and work over the ground with a hoe. This appears to induce fruitfulness,

Would Mr. Beall or Mr. Croil tell us the kind of soil, the variety of strawberry and the mode of culture which resulted in so large a crop on Mr. Beall's place ? SAMUEL FEAR, Brussels.

## NOTES TO NEW BEGINNERS. BY PETER PRUNING KNIFE.

The first step necessary to successful fruit growing, after selecting the location, is to prepare the

If not naturally dry enough it should be underdrained, and enriched, and cleared of all foul weeds-especially for small fruits. Quack grass, Canada thistles, and fruit will not flourish together, particularly the fruit, the quack and thistles may. I have spent more money in trying to clear these weeds from berries after they were planted than the fruit was worth and then had to plough them up. This was when I went on a new place and wanted to get

my small fruits planted the first year. While you are preparing your ground, make up your mind what you intend to plant and not wait for some tree agent to come along and tell you. There are always lots of these fellows around ready to show you in their catalogues and plate books, any amount of varieties which, if taken according to directions, &c., &c., will make you rich in about six months. (In experience if nothing else.) Don't buy all they offer you, if you do you will have too much fruit: besides it will be a fruitful source of annoyance to you to dig them out and plant them over after you have grown them a year or two. Find out from your neighbor, or through the reports of the Fruit Growers' Association and the Horticulturist what

### VARIETIES

succeed and pay best in your immediate locality, and plant these varieties. is not best, as the saying is, to "put all of your eggs in one basket," but if you are near to a good market a general assortment may be grown, from berries currants, grapes, &c., up to the larger fruits. Some seasons one or more kinds may fail and you will want to have others to depend on. If you are far from a market the shipping qualities of the fruits should be taken into consideration in making your selections. you have made up your mind what you want, send your order direct to some reliable nurseryman—with instructions not to substitute-instead of having it placed on the blank of some traveling agent on which this clause is always printed: "If you cannot supply all the varieties named you can substitute other varieties considered by you equally desirable "-which means you will get whatever he likes to send you.

Have your grounds properly laid out before planting and plant each variety separately as much as possible and place those varieties which ripen at the same time near together, for convenience in gathering the fruit. Keep

A MAP OF YOUR GROUNDS so if you want plants or scions of any particular variety at any time you may know just where to find them. "Be sure you are right and then go ahead" is a good motto for fruit growers. Get the right location, right soil rightly prepared, set the right varieties, and you are on the right road to success; providing right cultivation and care is taken, of which I may write in my next article.

# Flowers.

## WINTER FLOWERING BULBS.

BY HERMAN SIMMERS, TORONTO,

In our former letters we have drawn the attention of the readers of the Horticulturist to some practical hints about the care of winter flowering bulbs; but we must trespass the least bit from that line and think a little of the future. In the meantime we will allow the various bulbs to finish their growth and in our next issue we will speak of their after care. We purpose in this issue then to speak about the

### DOUBLE TUBEROSE,

This bulb has been tried frequently by the amateur with almost in every case a failure, mainly due to the subject not being brought before his notice at the proper season of the year for planting. The varieties of the Tuberose that are generally grown are the Large Double and the Pearl. The former variety is not so much grown, principally on account of its long stems; the latter variety is more popular on account of its extremely dwarf habit. Its height is about two feet and therefore it is better adapted both for the amateur and the professional. The proper time for starting the Tuberose is during this month, when after treating it in a



TUBEROSE.

manner somewhat similar to the Hyacinths, etc., i.e. placing it in the dark and allowing it to root thoroughly, but i with this difference, that they may be planted three in a quart pot, without in any way crowding or retarding their growth; also we would suggest that they be allowed to remain in the dark for a longer period of time than the Hyacinth, say about ten weeks. growth of the Tuberose is slower than most bulbs, therefore sorely trying the patience of the amateur, who very often is on the point of despair, but just then patience should step in and allow nature time to develop the flower.

After being brought to the light it generally takes the Tuberose bulbs about three months to develop their flowers, except when they are being forced in a conservatory. Allow them to keep their slow, steady growth and those of our readers who grow them

will be amply repaid by their show of flowers about the end of July. A point that may here be suggested, which would relieve the grower, is that they may be planted out in a bed about the end of May, care being taken when removing them from the pot, to keep the ball of earth from falling apart. This may easily be done by holding the upper portion of the pot with one hand, in a reverted form, then gently tapping it, and with the other removing the pot. Any person trying the Tuberose will be amply repaid for his trouble, being as it is the most fragrant of all flowering bulbs.

LIFE'S POETRY AND PROSE.

Fair and fragrant, full in foliage, Blooms a rose beside a wall, Freely swinging, closely clinging To a stately stem and tall.

Fair to look upon in passing, Fascinating to the eye, Spirit thrilling, joy fulfilling, To the daily passer by.

Safely hid 'neath leafy curtains, Pure of birth and gently born, In its nesting, sweetly resting, Grows a wearing, tearing thorn.

Low among the dew-wet grass, Lies a serpent as in sleep, After gliding into hiding,

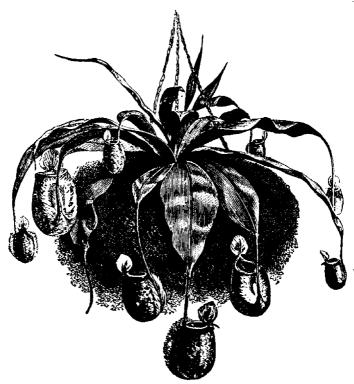
Down where noisome vapors creep.
Would you walk your way in safety.
Through life's day from early many

Through life's day from early morn. Virtue's flower pluck each hour, Free from every vice and thorn,

Would you have the rose, O pilgrim, Would you gather it to keep, Fully fragrant, brightly radiant, Look beneath before you leap.

C. W. BRYAN, in Good Housekeeping.

THE FASHIONABLE FLOWER of the day is at present the White Chrysanthemum. It is worn as a buttonhole, massed as a bouquet, and nestled among moss for table decoration, lightly veiled with maidenhair fern. Tinted ivy leaves very often form a background for it.—N. Y. Herald.



THE ASSATIC PITCHER PLANT.

# A CURIOUS PLANT. THE ASIATIC PITCHER PLANT.

OF what are termed Pitcher Plants, there are a number of different kinds, belonging to different botanical orders. One of these is an American kind, also known as

THE HUNTSMAN'S CUP, and the Side-saddle flower. Of this one, no doubt many of our young readers have met specimens growing wild, for it is found in many parts of America thriving in peat-bogs. The leaves, very curiously, have the form of an open cup, and are usually half-filled with water, much of which may be rain. Into this water many insects find their way during the season, only to drown.

But even more curious than the common American Pitcher Plant, is the Asiatic Pitcher Plant, of which an engraving is herewith given. It is over sixty years ago since the first species of this was met by Europeans, in China, and introduced into their hothouses. Since that time various other species have been found, but none is more interesting than the one here illustrated. This one is known botanically as Nepenthes Hookeriana.

In the engraving the peculiar appendages to the apex of the leaves, which give it its very appropriate name, are conspicuous. This formation is a veritable Pitcher,

which is hinged to one side. When

the Pitcher is in a young, forming state, the lid in some species is closed. As it develops, it opens, and even then, water is found in the receptacle, which proves that this fluid is a secretion of the plant. After the lid is fully open, no doubt additions are made to the water by rain and heavy dews. In this water, insects and even small animals are often drowned. A very remarkable quality of the fluid is that it

HAS A CERTAIN DIGESTIVE POWER, and it is believed that the plant derives some direct benefit to its growth by the consumption of insects. Plants of this class have therefore been called Carnivorous or Insect-eating plants. The Pitchers vary in size to hold from half a pint to nearly a quart of water each.

The Asiatic Pitcher Plants are no strangers to American hot-houses. The plants require, in cultivation, condition of treatment not very unlike those suited to the Orchids.—From Popular Gardening, with cut.

# Trees and Shrubs.

SUITABLE TREES FOR THE LAWN.
(Concluded.)

BY P. E. BUCKE, OTTAWA,

THE AMERICAN CHESTNUT (Castanea Americana) is valuable for its wood and nuts, and is ornamental in its appearance. It grows wild in the woods in the neighborhood of London, Ont., toward Byron, where there is a handsome grove. So far, I have never been successful in raising this tree from the nut in Ottawa, although I cannot say for certain that it was the severity of the winters that destroyed my seedlings. In its native habitat it grows on high, poor, gravelly soil. Its beautiful large glossy beach shaped leaf gives it a fine appearance. The tree grows from forty to fifty feet high, and would require

large grounds to show it off to advantage.

The Japanese Chestnut (Castanea Japonica) is said to be hardier, is dwarf in form, and has larger nuts. I am testing its ability to withstand this northern climate. If it should prove hardy, it will be a great acquisition to our nut-bearing trees; at any rate, it would be a paying tree to plant by the acre in western Ontario, for the sake of its fruit.

The Thorn (Crategus).—Some of the wild species are very handsome, bearing a profusion of blossoms and fruit. The Cockspur (Crus galli) grows to twelve or fifteen feet high; its red berries give it a very ornamental appearance in the autumn. The double-flowering varieties of Europe are very attractive. I have found the plants of the latter fairly hardy here, although they have never flowered. I have had them growing for ten years past. In western Ontario they should be a success.

THE CATALPA SPECIOSA is fairly hardy, although the more tender shoots do sometimes kill back in exposed localities. Its large heart-shaped leaves make the tree attractive.

Linden, or Basswood (Tilia).—This native tree is too well known to need description. I merely mention it to call attention to it as a street tree, for which its fine umbrageous foliage peculiarly fit it. Its sweet-scented blooms in the early spring have a peculiar charm for the bees, and bee-men count the honey made from its inflorescence amongst the best flavored and clearest that is sent to market.

CUT-LEAVED LINDEN (Tilia Laciniata Rubra) is very striking, hardy, and pretty; it has bright rose-colored young wood.

THE EUROPEAN LINDEN (Tilia Europea) is very suitable for avenues. The



THE BLACK WALNUT.

leaves are a darker shade of green than the American variety, smaller in size, but are borne in greater profusion, forming a dense shade. The outline of the tree is regular and conical; it will suit itself to any soil, and is especially adapted to large lawns.

MULBERRY (Morus) .- The only variety of this tree I have succeeded in growing is the Russian. It quekly attains a good height, and stands the climate well; although the tips of the young wood often suffer, this does not check the tree's growth. I have tried Downing's, but it is far too tender. should not advise any one building too much on the fruit to be obtained, but as it grows rapidly from cuttings, and the fruit varies considerably amongst the seedlings, one may arise in the multitude of those grown, which will be valuable. Its easy propagation, freedom from suckers, quick growth,

hardy nature, and capacity for standing the knife should, I think, make it a very suitable plant for hedges.

BLACK WALNUT AND BUTTERNUT (Juglans Nigra and Juglans Cinerea) are both hardy, and make attractive looking trees, of good size. They are both of quick growth, besides which they have the nuts, for pickling and eating, to commend them. Their feathery, fern-like foliage gives them a striking appearance, and no place of any size should be without a few specimens of each of these trees.

## THE CATALPA.

Str,—I am sorry to report the same as last year "That I am afraid it is too tender for this climate," Last spring it came out strong to within 1½ inches of the tip of the last

season's growth which was about 18 inches, but the frost on the 6th of May cut it down, and this year it has again sent up a shoot from the root about 22 inches and has seemed to be very vigorous the rest of the season. It is fairly protected and is in good ground with good drainage. A. J. Collins, Listowel.

# Scientific.

### ACCLIMATION.

BY D. W. BRADLE.

The readers of the Canadian Horticulturist may remember the purport of a very interesting article by Mr. D. Nicol, at page 85 of Volume IX. In it he gives the result of thirty-two years of endeavor to acclimate many half-hardy shrubs and fruit trees. The conclusion at which he arrives is this, "that trying to make tender plants hardy is

only a waste of time and means." Doubtless this conclusion is quite correct with regard to the individual trees and shrubs themselves, but my experience leads me to believe that there is a way whereby we may, in process of time, secure a race of these very trees and shrubs that shall be perfectly acclimated.

In support of this view I point to the peach trees of north-eastern China, to the cherry trees of the Vladimir district of Russia, lying north of the fiftyfifth parallel of latitude, to the Catalpa of the north-western States, and to the evergreens tender from the Pacific slope, but hardy when raised from seed grown in Colorado. Why is it that these trees are able to endure the rigors of those cold climates, and not merely to endure, but to flourish and bring forth fruit if it be not true that there is such a thing as acclimation of half-hardy trees. How long a period of time has elasped during which this process of acclimation has been progressing to the full development which we now find, it is not possible to tell Nature's process are not usually rapid in the affecting of such results, "the mills of the gods grinds low."

Nevertheless, within the short span of half a century, I have seen a race of Biota orientalia, produced by the sowing of seed raised in our climate, that is perfectly acclimated, while the parent stock was with difficulty preserved from death long enough to yield seed. Hence I infer that by sowing seed, from trees that have been able to produce seed in any given climate, for successive generations, a race of such species of shrub or tree will in process of time be produced, that will be perfectly hardy in that climate. How long it will take to accomplish this, for how many successive generations it will be necessary to sow the seed, it is impossible to say. Doubtless, when thus taken in hand by an intelligent guide, nature will take longer strides and make more rapid progress than when left to her own faltering steps.

But whether it is worth our while to proceed in this slow, and therefore tedious, manner to accomplish our desired acclimation is quite another question, We now have means at our command whereby this work can be accomplished with far greater rapidity. The art of breeding for specific results is as much within the control of the horticulturist and orchardist as of the stock-raiser. Perhaps it has not yet been quite as fully reduced to a science by the former as by the latter, which, if true, only shews that there has not vet been as much careful study and experiment on the part of the horticulturist as has been put forth by the cattle-breeder. Yet enough has been done to prove that by the process of cross-fertilization we can blend in very considerable measure the desired size and quality of fruit with the wished for hardiness of tree. The thoughtful student and painstaking observer are wanted to work out these problems and reveal to us the laws of this procreation, so that, guiding his operations by these laws, the propagator may work with certainty to definite results. We have had enough of haphazard guess-work, of supposing that cross-fertilization has been effected merely because certain trees or vines were in proximity; it is time now for something like accuracy in our working. if we are ever to penetrate the secrets of nature's working. But when our cross-fertilization shall be performed with a knowledge of the laws of vegetable heredity, we shall hold a talisman more potent than any of which the wildest imagination has ever dreamed.

#### PARIS GREEN.

BY THOS, BEALL LINDSAY,

As an insecticide the verdict is unanimously in favor of the use of this poison.

Most persons now understand that

"a teaspoonful of Paris Green to a pail of water" is about the right proportion to use in destroying insect life, yet the uncertainty as to its effects on the foliage is as strongly felt as ever. This uncertainty is no doubt produced by the "indefinite quantity" as referred to by Mr.Thompson, Canadian Horticulturist p. 156, used on a given surface of foliage and in the manner of using it. During the past five or six years I have used in my garden and orchard about one pound of Paris Green per acre per annum, and have never known any injury to the foliage. I mix a quarter of an ounce of Paris Green and about double the bulk of flour with two gallons of water, and apply while thoroughly mixed, with a hand syringe having a very fine rose nozzle.

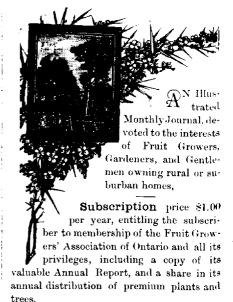
The quantity to be applied to each tree must depend upon the size of the tree, one gallon being sufficient for a tree with bloom enough to produce four or five barrels of fruit.

It should be applied when the tree is in full bloom, and again about a week later

Injury to the foliage is caused by using too much Paris Green. Anyone may see however that the quantity of poison used on each tree is not necessarily in proportion to the quantity of Paris Green to each gallon of water, but to the quantity of the mixture applied to each tree.

As to the manner of applying the poison to the apple tree so as to accomplish the greatest good, with the least injury to the foliage, it should be understood (1) that the poison, to be effectual, must be applied to the centre of each blossom and that the smallest atom is sufficient, and (2) that any of the poison falling upon any other part of the tree will in no way prevent the operations of the Codlin moth. The spray should be so projected that it may fall on the blossoms in a very fine mist.

Canadian Horticulturist.



Pd. 86.—If your address label reads thus, your subscription expired with December No. We send you January and February Nos. of 87 hoping you will renew, but if you do not wish to do so, please hand these copies to some friend who is interested in Horticulture. All names still unpaid will be promptly removed from our list after this number. The Report for 1886 will be sent only to those who pay their fee for 1887.

This Journal is not published in the interests, or for the pecuniary advantage of any one, but its pages are devoted wholly to the progress of Horticultural, Science and Art in Canada. We aim at the development of the fruit growing industry in our Province; at the general distribution of knowledge concerning all the newest and best varieties of fruits; and at the education of a refined

taste in the art of decorative gardening around the homes of our Canadian people.

With such ends in view we invite the co-operation of all the lovers of Horticulture both in extending the membership of the Fruit Growers' Association of Ontario, and in contributing to these pages such items as may be of general interest and profit.

Back Volumes I., III., III., IV., VII., and VIII of The Canadian Horticulturist are in stock at this office, and will be sent to any address at 60c. each, or with accompanying report for 75c. each.

Any Subscriber failing to receive his copy of The Horticulturist at the proper time will please notify us at once of the failure that we may send it him before the edition is exhausted.

A Package of Sample Copies of such numbers as Vol. VIII. as can be spared, containing coloured plates, will be sent to any one who will distribute them with the view of getting new subscribers.

Delay of January Number.—The following note from Messrs. Copp, Clark & Co., printers of the Horticulturist, Toronto, will explain the delay of the January number:---

"The January number of the Horticulturist is all mailed (Jan. 12th). We had a break down in our calendering machine, which, we regret, occasioned the delay in its publication, and is not likely to again occur."

## THE HON, MARSHALL P. WILDER.

Whether we wish it or not we must at times lay down our spades and our pruning knives, and reflect upon the shortness of our stay among our beloved trees and plants.

Already our readers will have read the sad intelligence of the death of the Hon. M. P. Wilder, President of the American Pomological Society, at his home near Boston on the 16th, of December last. His birth away back in

the year 1798 reminds us of the days of George III., George Washington



HON. MARSHALL P. WILDER.

and Napoleon Bonaparte. Early in life his taste for gardening manifested He said on one occasion "My love for rural life and the cultivation of the soil is well known to you all. Oh! yes! I cannot remember the time. since my sainted mother took me into the garden to help dress and keep it. that I did not love the cultivation of the garden above all other pursuits,"

For many years a leading merchant in the city of Boston, he yet found much leisure for his favorite study of Horticulture. His successful experiments in hybridizing are well known, and his pear orchard of some 800 varieties has become justly famous.

As time went on he devoted more and more attention to fruit culture until in 1848 he became President of American Pomological Society the which was organized in that year, and this position he held until the day of his death. Those were significant words of his at the complimentary dinner in Boston, considering they were spoken only two months before his decease :--"Life at the longest is short. I have passed its summit, and shall soon

reach the sunset shore, when I must bid farewell to things of earth. But if I can have the happiness to know that I have done anything to promote the comfort of mankind, I shall feel that I have not lived in vain. And so I shall continue to work on in the same old way while life and strength shall last."

At the January meeting of the Massashusetts Horticultural Society, a memorial was prepared by Mr. Wm. Strong. In presenting it he said: "Others will dwell upon the traits which gave him success in the various fields of his use-We turn rather to notice his characteristics in his favorite pursuit of horticulture. In this he is best known. Here he did his best service for his fellow-men. It was indeed a favorite pursuit, a genuine love. While engaged in a large commercial business, he yet found time for extensive importation and cultivation of a great variety of hardy and exotic fruits, plants and agricultural products; being one of the earliest introducers, and always on the alert to obtain and test new kinds. This enthusiasm was life-long, and was as hearty in the cultivation of paonies as pears, or in the case of camellias or or dahlias or azaleas as of raspberries and strawberries. Undeniably he was stimulated by a desire to exhibit the best; but before and deeper than this was a hearty interest in every form of cultivation of mother Earth. From my earliest acquaintance with Mr. Wilder, more than thirty years since, I recall a reverent appreciation of the wisdom and goodness of the Creator in all his material works. And I think as the years went by a steady and a marked increase of this feeling was to be noticed, a leading from Nature up to Nature's God, so that he gave frequent expression of his gratitude to the Infinite Ruler of the Universe.

"We shall love to recall the picture of this patriarch as he walked among his plants watching to obtain some new results and improvements by crossing and varied culture. It seemed as though his occupation was to him the very elixir of life, imparting to him a perennial youth. How different in its result from a life spent in the absorbing and selfish pursuit of gain or worldly ambition! And yet in other respects Mr. Wilder was an old man—his life was completed; his was a sublime old age, full of good works. The world is better, how much better, for his living Long shall we cherish his memory; long may we be stimulated by his example."

Mr. Robert Manning, the Secretary,

said :---

He had hoped that Mr. Wilder might live to the meeting of his favorite society, the American Pomological Society, in this city in September next, but it has been differently and, we cannot doubt, more wisely ordered. himself felt deeply the uncertainty of his stay until that time, for in the address which he prepared for the meeting at Grand Rapids, Mich., in September, 1885, after expressing his regret that he was unable to be there personally, he said in words that now seem prophetic, "I console myself with the hope that you will accept the invitation of the Massachusetts Horticultural Society and come to Boston in 1887, when I may be permitted to lay off the robes of office with which you have so long honored me, unless, ere that time, 1shall have been clothed with the robes of immortality and gone up to gather celestial fruits, which ripen not in earthly climes."

One of Mr. Wilder's most prominent characteristics was the perpetual youth which, in spite of the infirmities of age, he carried with him, and which led Governor Long, in his speech at the meeting of the American Pomological Society in 1881, to speak of him as at

once the oldest and the youngest man in the State. This had been attributed to his love for rural pursuits; but the speaker thought it due rather to his kind and loving heart, continually overflowing with regard to every one, so that they who had known him but a short time felt that in his death they had lost a dear friend. This thought, the speaker said, had been better expressed in Whittier's lines, with which he closed.

"To homely joys and loves and friendships Thy genial nature fondly clung; And so the shadow on the dial

Ran back and always left thee young."

May the spirit which characterized this gifted and noble-minded man be caught by many Canadian horticulturists, who will pursue their favorite avocation not merely from sordid motives and selfish purposes, but in the interests of science and in the progress of the nation in one of her most important branches of industry.

## OPEN LETTERS.

From British Columbia. — Mr. G. W. Henry, of Port Hammond, B.C., writes: "We are going into the small fruit-growing and nursery business here, and we want *The Horticulturist*. Before long we will be able to tell you something about this the finest fruit-growing district in America, and send you some samples that will make eastern people open their eyes; for I have such large and fine specimens of apples, pears, plums, yes, and cherries, too, as cannot be touched by anything in Ontario. *They have the flavor, too, of our Ontario fruit.*"

Commission Agents. — Joseph Bourne, Niagara Falls South, writes: "I think there ought to be some way of letting the members of our association know, through the Horticulturist, of any firms that do not deal fairly with their patrons.

"I think they should be warned to beware of Jackman & Lindsay, Toronto. When we sent them anything, they made us no report of sale, until they sent their bill of all the sales. For instance, with grapes, they never let us know at what prices they were selling them until the season was all over; and the same with our neigh-

We can sympathize with Mr. Bourne in his experience, having shipped extensively on commission every fruit season for the last fifteen years. One does not like shipping fruit in the dark, and placing his whole crop at the mercy of middlemen; and no commission house can expect to succeed that does not adopt a system of giving shippers constant information concerning receipt and sales of their goods, and reliable quotations of prices current.

Indeed, of late years, the margin of profit has been too small on most fruits to bear dividing up with commission men, and those growers are fortunate who are able to make their own sales.

However, we have received prompt remittances and daily market reports from the agents of the Niagara District Fruit Growers' Stock Co. at Toronto, London, Ottawa, and Montreal; and also from the firms of Messrs. Mc-William & Everist and Mrs. W. Bilton, Toronto; and Messrs. Vipond & McBride and Clogg & Co., Montreal, all of whom we believe to be perfectly reliable.

## THE FRUIT KING OF CANADA.

The Pall Mall Gazette of December 15th gives a very interesting account of an interview with the President of our Association, and in the introduction speaks of him in the following tributary language:—

"No visitor that the Colonial Exhibition has brought from the England

beyond the sea has been more welcome at this office than Mr. Alexander Mc-Donald Allan, of Goderich, Ontario, the Fruit King of Canada, not so much because he is a type of exactly the citizen of Greater Britain that one likes best to come into contact with, as because he is a foremost representative of the most important industry there, and the one in which Englishmen are most interested at the present moment. Mr. Allan is a tall, broad-shouldered, black-bearded man of perhaps between forty and fifty, with a gentle face and a deep, tender voice. The secret of his gentleness is soon learned, for 'I was born a fruit-grower,' he says; 'and, though my father was on a farm, it was always in the orchard that they looked for me. No doubt I am prejudiced,' he adds apologetically, 'but I honestly think there is nothing in the world to compare with fruit-growing, and, plunging straight into his subject, Mr. Allan drew a really admirable and almost pathetic analogy between a tree and a human being. 'I would be as kind to a tree as I would to a person. I would not hurt it for the world.' and he lays his hand kindly on the office table, as if in mute protest against any living wood having been turned to so base a purpose. He explains how a tree feels a wound exactly like a man does; how the older it is, to a certain extent, the more it feels it; how wicked it is to needlessly lop a limb off a tree; and how a tree that has just borne a large crop of fruit must be treated with the same consideration and care as a mother who has just brought a child into the world.

"Mr. Allan is the President of the Ontario Fruit Growers' Association, a position which it has taken him many years to reach. He is recognized by the fruit-growers both of Canada and the United States as one of their most trustworthy experts in all horticultural

matters. He is, and has been for a long time, the largest exporter of fruit to England, and he is in England as Fruit Commissioner of the Canadian Court of Exhibitions."

# Question Brawer.

This department is intended as an open one to every reader of the "Horticulturist" to send in either questions or answers. Often a reader will be able to answer a question which has been left unanswered, or only partially answered by us. For convenience of reference the questions are numbered, and any one replying or referring to any question will please mention the number of it.

3. Early Strawberry.—What is the most profitable one? (A. D.)

The Crescent Seedling is the leading variety for earliness and productiveness. At the December meeting of the Ohio Horticultural Society four objections were urged against this berry, (1) too many runners, (2) too small, (3) too soft, (4) deficient in table qualities; and yet it is more extensively grown in Ohio than any other variety.

4. Pruning Pear Trees.—Should a pear orchard be pruned ? [A. D. Mohawk.]

Yes. Superfluous branches should be cut out, and the new growth shortened when it grows too rank.

5. Deciduous Tree for Wind Break.—What is the most cuitable, deciduous, quick growing tree to plant in a single row for a wind break in uncultivated ground? How is the Lombardy Poplar? [R.]

The Lombardy Poplar is good until it gets old, when it becomes unsightly. We would suggest the Silver Maple.

6. To make Pear Trees bear Fruit. — I have Flemish Beauties twenty feet high and eleven years planted which do not bear. What would you do for them?

[F. Anderson, Ayr.]

Your idea of cutting off the top, and pruning them well, if done in June, would tend to throw them into bearing. Root pruning will also be serviceable.

7. Growing Cranberries. - I have a take which, I think, could be dried sufficiently to grow cranberries. I saw by The Horticulturist that the bed should be covered with sand. Why? The lake has a peat bottom. Wild berries grow well around it without sand. quantity of vines should be put on an acre? What would the probable cost be per acre? Are tame berries much better than good wild ones?

[S. H. Kerroot, Penetanguishene.]

We cannot better answer Mr. Kerfoot, nor more interest other readers, than by condensing the following remarks from an excellent editorial in the Farm and Home.

Cranberries are profitable providing you have (1) a free supply of water at all times under control; (2) a bog located so that it can be either drained or submerged at will; (3) the right kind of soil; and (4) a convenient sand bank.

In Cape Cod the cost of making a bog and planting runs from \$250 per acre upwards, but a fair yield is 100 bushels per acre; so they pay well if everything is favourable.

You want water for the purpose of protecting your vines, so that you can flow your bog and protect it from freezing, and afterwards, in the spring-time, for the purpose of killing the vermin that infest the vines. You need to protect the crops when very severe frosts come on suddenly, by flowing the bog rapidly and covering the berries, thus saving them. A swamp soil, not too peaty and with some loam in it, is the best kind of land. Trees, bushes and bogs must be rooted out and the bog made smooth. Then cover to a depth of three to eight inches with sand or fine gravel—the deeper the sand the longer the bog will last. Loam will not do, because it brings in weeds and grasses, and is not as warm as sand. The sand assists in protecting the berries

from frost and injury. It keeps out weeds, and serves as a mulch in warm weather. It also keeps the bogs from running to vines, because cranberry vines, if you put them in the mud, will run so much to vine that they will not make the uprights on which the berries The sand has to be wheeled in wheelbarrows on planks, and spread by Before sanding, make ditches about three rods apart running into a main ditch and with such direction and fall as will speedily conduct the water from the dam over the bog, and most readily drain it off to a depth of at

Fertilizers are seldom applied, as they cause too much wood growth at the expense of the fruit. Ground bone in moderate quantities is probably the safest fertilizer to use. Bogs run out after a time, but may be renewed by mowing and burning the vines and resanding. There are bogs on Cape Cod that are yielding profitably for their 32nd year. The vine is very hardy, and may be set at any time, but the spring is best. The usual course is to punch holes in the ground, about eight or ten inches apart each way, and insert therein two or three vines, and afterwards press the soil around them. Some cultivators of large experience set the vines in shallow furrows and cover them, leaving out the end of the vines. It is important to put them down below the sand, so that they may take root in the soil. It should be kept clean of weeds until the vines cover the soil entirely. If the bog is kept covered with water until June 1, or until danger of frost is past, most of the vine insects will be killed, except the fire worm, which is killed by sprinkling the vines with a strong solution of tobacco. It is necessary, also, to flood the bog when early frosts threaten, and so turn off the water before the berries rot.

Bell, Bugle and Cherry are the leading kinds. Early Bell is the standard early—of good size and very dark color, keeps well and is productive. It blossoms and ripens in New Jersey ahead of all other varieties fully two weeks. Black Bell is hardy, good size, dark color and yields well. Richmond Bell is large, fair, very prolific, but rather Bugle is large, long, not early, fruit apt to be coarse and saded green; good on well-sanded bogs, not too wet Creeper is cherry-shaped, and cold. extra large, light color, very prolific, rather late, not a good keeper, adapted to localities subject to scald. Pond is a useless sort. The Cherry cranberry is of two kinds—large and It is very hard, dark crimson, medium early and a most popular market berry. The darker the color the better the berries will sell.

- 8. Infusorial Earth.—Where can it be obtained? Give address.
- 9. Lucretia Dewberry.—My plant has made a number of long vines. How should they be pruned?

J. W. M., Toronto.

We cannot answer from personal experience. At the Cleveland meeting of the American Horticultural Society, Mr. Caywood said "We tie the upright vines to a stake, and then let them trail over the ground near the stake." Mr. Albaugh, at the late meeting of the Ohio Horticultural Society said "The plants are set seven by eight, and cultivated the eight foot way, the vines lying on the ground in a matted row, four feet wide." Mr. J. H. Hale of Connecticut says "They are planted in rows eight to ten feet apart, with plants four or five feet apart in the rows, forming a thick matted row or bed four or five feet wide."

10. Pruning raspberry plants,—How close to the main stem should side branches be cut? [J. W. M.]

Mr. A. M. Smith of St. Catharines replies: "In regard to cutting back raspberries; cut side branches 6 to 12 inches according to growth of canes: if canes are very slender, 3 to 4 inches."

11. Hardiest cherry.—Is the Vladimir, or large Montmorency the hardiest, and will they grow here.

[W. A. Smith, Coverdale, N. B.] The Vladimir. It should be hardy enough for New Brunswick.

12. Grapes in New Brunswick.—Can grapes be grown as far north as New Brunswick; if so, will the Niagara succeed [W. A. S.]

Mr. W. E. Wellington of Toronto replies: "I do not think that grapes can be successfully grown in New Brunswick, without being laid down in the winter.

As you are aware, in the Ottaws Valley where the thermometer goes much lower than it does in western Canada, they raise grapes successfully, and grow many fine varieties, but during winter the vines are laid down and covered with a little earth. If that trouble is taken, they can be grown in New Brunswick, and the best varieties, would be Worden, Moore's Early, Champion and Early Victor. I do not think the Niagara would prove a success, as it ripens rather too late."

13. Best side of a building for grapes. In planting around a building which is the best quarter, N. S. E. or W.

[W, A. S.]

M. W. E. Wellington; "I do not approve of planting vines near a building but prefer the open field, or garden Would select the South provided the vines were laid down, so they would not start too early in the spring, if the must be planted close to a building."

14. Vladimir cherry. - Will you kind describe this cherry.

[W. T. Goldsboro, Brooklin.]

This is the most important cherry in all Russia. It is named the Vladimir because in that district its culture has attained enormous proportions, and it is shipped away to market by the car load.

It is very hardy and bears fruit even where grown a neglected fashion. The tree is dwarf in habit, indeed rather a bush than a tree, some of them being of weeping, others of erect habit.

The flesh of the cherry is a deep purplish red color, and the skin reddish black, and loses its acidity when fully ripe, See Report for 1883 p. 224.

15. Wilson Junior Blackberry.—Have any readers of the Horticulturist grown the Wilson Junior Blackberry sufficiently to know whether it is as good as recommended, or not, I hardly think it equal to the Snyder.

W. C. REID, Enterprise, Ont.

# REPLIES TO PREVIOUS QUESTIONS.

Stock and Scion. (9 vol. ix.) Dr. Hoskins of Vermont has collected considerable evidence in favor of the view that the stock does sometimes effect the size of the fruit grown upon the Scion. He says in Vick's Magazine: "Regarding the effects of top-grafting apples into crabs, a practice very common in Northern New England and the Northwest, there is no need of weighing much evidence, since every extensive fruitgrower and nurseryman in Minnesota. Northern Iowa and Wisconsin has in his grounds plenty of proof that very marked changes are so frequent as to cause growers frequently to say, when shown a new apple thus grown, 'I cannot say how near this comes to the original in size, color or taste, for it was grown top-grafted in a crab tree.'

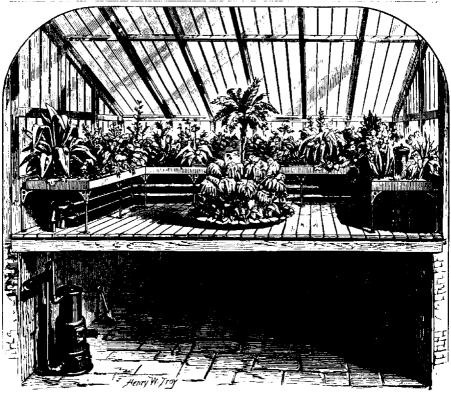
\* \* But this is not to say that topgrafts in crab trees never produce fruit true to type, for they frequently do, and this irrespective of the character of the wood union at the point of inserting the Scion. I have learned by experience that some of the crabs make pretty good stock, at least for some kinds of large apples to be grown upon; but which will, and which will not, can only be determined by experience."

In the last report of the F.G.A. of Nova Scotia this very interesting subject is ably dealt with by Prof. Hind, who inclines to the opinion that a scion grafted upon a slower growing stock will be likely to produce larger fruit than under other conditions, and also, that the time of ripening of the fruit is affected by the habits of the stock. We hope soon to be favored with the results of further experiment in this direction.

Rust on Strawberry Leaves. (13, vol. ix.) Prof. J. C. Arthur of the New York Agricultural Station writes: "The strawberry leaf which you enclosed is affected by Ramularia Tulasnei, a common fungus growing upon strawberry leaves everywhere. It is said to be kept somewhat in check by burning the leaves off from the beds after fruiting.

Greenhouse and Heating. (11, vol. ix.) In order to answer this question still farther we wrote Messrs. Hitchings & Co., 233 Mercer street, New York City, asking the favor of the cut shown below representing a complete and efficient heater, designed expressly for heating small conservatories such as are frequently attached to dwelling houses.

These heaters are managed with as little trouble as an ordinary self-feeding coal stove. The illustration represents a small conservatory 10x20 ft, attached to the dwelling. The heater is shown in the cellar under the conservatory with two 1½ inch pipes rising from it through the floor, and connecting with four 4-inch heating pipes which pass around the three exposed sides of the conservatory, and terminate in an expansion tank shown at the right hand corner. If it is impracticable to sink such a pit, it can be arranged to have



CONSERVATORY.

the heater on the same level as the conservatory floor by changing the location of the tank, and the height of the heating pipes. The price of these heaters ranges from \$35 to \$80.

# Review

We will gladly give our caudid opinion of any books, magazines or cutalogues received, especially if they are likely to interest or benefit Canadian fruit growers, but will not insert cut and dried reading notices in favor of any publication whatever.

The Rural New Yorker.—From our earliest recollections this valuable farmers paper has been a household favorite. It is always bright fresh and vigorous. There is nothing stale about it, nor is

it one sided, but it contains original articles of great value upon every department of farm life. The address is 34 Park Row, New York City.

### CATALOGUES.

Vicks' Floral Guide for 1887 comes to hand, if possible, in a more attractive form than usual. It has a beautiful colored plate of pansies, representing a straw hat full of extra choice and Giant Trimandeau, the latter a new and extra large variety. It has another colored plate representing five varieties of bordering and bedding plants, while the cuts of flowers throughout the book are as numerous and complete as in former years.

# Aotices.

## THE WINTER MEETING

Of the Fruit Growers Association of Ontario will be held in the City Hall, Chatham, Ont., on the second Wednesday and Thursday in February, 1887, at 10 a.m.

Among the subjects proposed for discussion in the

### DAY MERTINGS

are the following, subject to revisal:

- (1) State of Fruit Culture in the County of Kent, kinds grown, quantity shipped, &c.
- (2) Plums-Best modes of destroying the Curculio. Is any variety Curculio proof?
- (3) The Apple Spot: On what varieties has it appeared? What varieties are wholly free from it? When a tree is once subject to it, does it ever recover?
  - (4) Fungicides and insecticides.
- (5) Are Apple Orchards Profitable? What is the average crop per acre? Cause of their barrenness in some parts of Ontario. Reinvigorating old orchards.
  - (6) Value of Apples for feeding stock.
- (7) Russian Fruits-Which ones have been proved of decided value for our Northern Sections?
- (8) Apples and Pears-Six kinds of each best for (a) home use, (b) market.
- (9) Grapes—Is there danger of overstocking the market. The best new varieties.
- (10) Methods of planting, Cultivating and Pruning Small Fruit Plants.
- (11) The Aphis on the Cherry leaves. Extent of the plague. Best means of check-
- (12) Commercial Fertilizers for Garden and Orchard.
- (13) Points to be observed in judging fruits.
- (14) The Fruit Garden for Home Uses-What to plant and how?

It is proposed to devote the

### EVENING SESSION

to addresses and discussions on such subjects of general interest as the following:

- (1) The Canadian Fruit Exhibit in London, Eng., and Prospects of the English Market for Canadian Fruits.
  - (2) Horticultural Life in England.
- (3) Roses—The best novelties. of them a decided acquisitions? Are any
- (4) Flowering Shrubs for the lawn and how to group them. Latest introductions.

It is desirable to have a

## SHOW OF FRUIT

in connection with the meeting, especially of any new or desirable kinds. Anything sent for this purpose at the proper time to the Secretary at Chatham will have express charges paid by the Association.

We hope to be favored with visits from DELEGATES

from other Societies. Mr. Charles Garfield writes that Pres. P. P. Lyon of South Haven will represent the Michigan Herticultural Society.

There will be a question box on the Secretary's table to be opened at intervals.

Questions submitted by members of our Association living about Chatham will receive prior consideration.

# FRUIT AND ORNAMENTAL TREES. GRAPE VINES, &c.

Black Walnut, 2½ to 4 feet, \$8.00 per 100; 6 to 8 feet, \$20.00. Everything at lowest rates.

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· We should like some friend in every town to show samples of The Canadian Horticulturist, and take names of subscribers. We will send free samples for this purpose to any one who will write for them, and pay a commission on new subscriptions obtained by any one acting as Agent.

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Numerous cases of Itch, Ringworms, Infantine, Eczema, Piles, etc., etc., known as incurable, have been radically cured by the use of this soap.

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SOAP No. 1.—For itching of all kinds, in the head, in the anus, genital parts, etc. SOAP No. 2.—Detersive and antiseptic. Is used to clean sores and ulcers, and helps at the same time to separate the matters which cover them and puts in the flesh a circulatory excitation favoring the healing up.

It is employed against phlegmons, abcesses of all kinds, boils, ulcers, simple or complicated wounds, whitlows, wounds caused by sharp instruments, eresipelas, pustules,

pimples, cuts of all sorts, or bruises of all kinds.

SOAP No. 3.-Against nits, lice, crabs, parasites, acarua, and all kinds of vermin which might incommodate the human kind.

SOAP No. 4.—For syphilitic ulcers, chancres, etc. SOAP No 5.—For Tetters. All kinds of tetters, with a hard crust, shelly, scaly, farinaceous, pustulous, etc., etc., and also for tetters in the head, causing the falling off of the hair.

SOAP No. 6.—For Scurf in the head. Scurf in the head is a sickness caused by parasites, either of vegetable or animal nature, and this soap destroys the parasites which

are the cause of that sickness.

SOAP No. 7.—For the barbers' itch. For all kinds of pustules, pimples upon the upper lip or the chin. All persons having pustules on such places should make them disappear as soon as possible. The soap No. 7 is most efficacious against that disease.

SOAP No. 8.—Against Freckles. This soap has also the property to remove from

the face those small worms which introduce themselves in the skin and which might re-

main there forever if you do not make them disappear.

SOAP No. 9.—Against Rheumatism. This soap will be of a great help to persons

suffering from inflammatory rheumatism, chronical, muscular or gouty rheumatisms.

SOAP No. 10 .- This soap is employed to cause wens to disappear from the throat.

Also for all kinds of swelling, such as white swelling to the knees.

SOAP No. 11.—Disinfecting. This soap ought to be of general use in times of epidemics. It is of a nature to destroy the germ of epidemical and contagious diseases, such as scarlet fever, croup, diseases of the skin, typhoid fever, small pox, etc., etc.

SOAP No. 12.—This soap is particularly recommended for infantine for eczema. Moreover this soap is useful for pustules, periodical pimples on the face, for scrofulous

superficial sores, for interminable suppuration. SOAP No. 13.—For chapped hands.

SOAP No. 14.—Called by a right title, Soap of Beauty, is used to beautify the

the skin and a fine complexion to the face.

This soap is particularly recommended to persons who have bad complexions, for dry and cracking skins, for persons who have wrinkles caused by the wart of elasticity in the This soap acts also in a very efficacious manner for pustules and periodical pimples to the face. Moreover it is a hygienic soap which renders great services in all kind of fevers.

SOAP No. 15.—Dentifrice. This soap which is greatly superior to all tooth powders to cleanse the teeth, has the advantage to be anti-contagious for the following

diseases: fetidity of the mouth, typhoid and pestilential fevers, etc.

SOAP No. 16. - Against mosquitoes and stinging flies. This soap is to-day considered, according to different reports, as being the greatest discovery of the times to provide against stings of all sorts of insects.

SOAP No. 17.—Against scab. This disease essentially contagious, is caused by the presence of an insect called acarus; that insect disappears in a few days in using the soap

No. 17.

SOAP No. 18. For the Piles. This soap has already operated in the most ad-

mirable cures and that in the worst chronical cases.

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